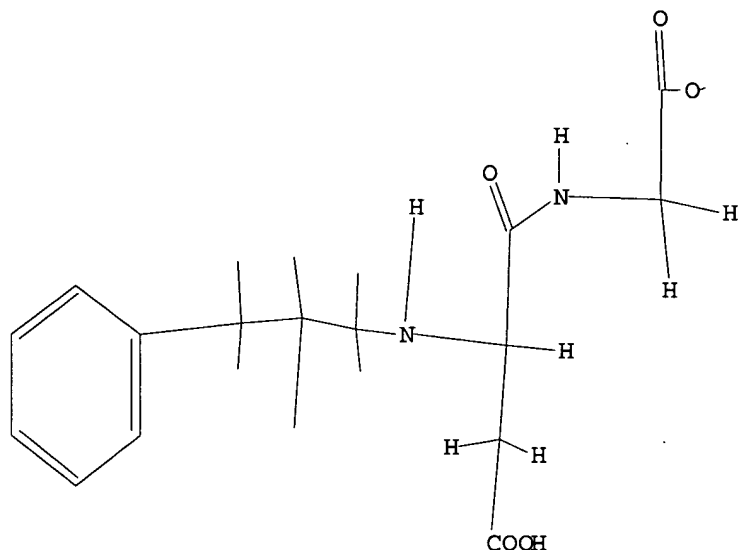


=>  
Uploading. 9197.str

L1        STRUCTURE UPLOADED

=> d l1  
L1 HAS NO ANSWERS  
L1        STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full  
**REGISTRY INITIATED**  
Substance data SEARCH and crossover from CAS REGISTRY in progress...  
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 18:43:06 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -        23 TO ITERATE

100.0% PROCESSED        23 ITERATIONS        0 ANSWERS  
SEARCH TIME: 00.00.01

L2        0 SEA SSS FUL L1

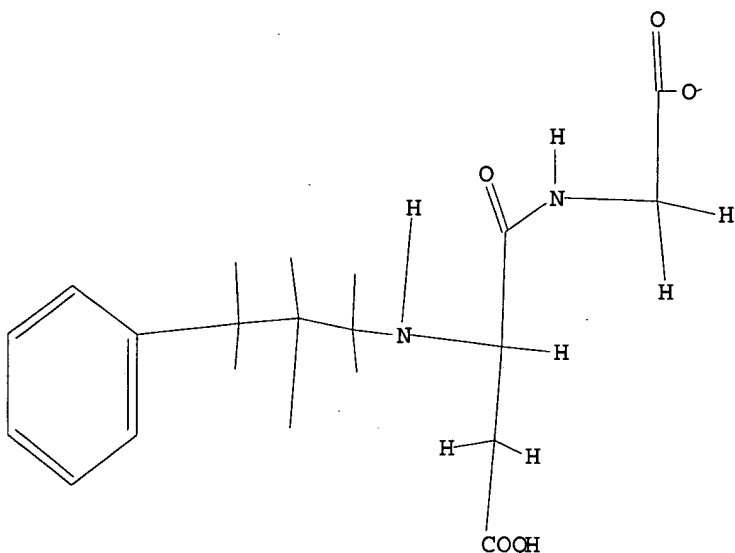
L3        0 L2

=>

=>  
Uploading 9197.str

L1        STRUCTURE UPLOADED

=> d.l1  
L1 HAS NO ANSWERS  
L1        STR



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

**REGISTRY INITIATED**

Substance data SEARCH and crossover from CAS REGISTRY in progress...  
Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 18:43:06 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED -        23 TO ITERATE

100.0% PROCESSED        23 ITERATIONS  
SEARCH TIME: 00.00.01

0 ANSWERS

L2        0 SEA SSS FUL L1

L3        0 L2

=> s n-alkylaspartyl dipeptide ester

2506833 N

4 ALKYLASPARTYL

15764 DIPEPTIDE

466024 ESTER

L4        0 N-ALKYLASPARTYL DIPEPTIDE ESTER  
          (N(W) ALKYLASPARTYL (W) DIPEPTIDE (W) ESTER)

=> s alkylaspartyl dipeptide ester

4 ALKYLASPARTYL

15764 DIPEPTIDE

466024 ESTER

L5        0 ALKYLASPARTYL DIPEPTIDE ESTER

=&gt; s n-alkylaspartyl dipeptide ester

2506833 N

4 ALKYLASPARTYL

15764 DIPEPTIDE

466024 ESTER

L6 0 N-ALKYLASPARTYL DIPEPTIDE ESTER  
(N(W) ALKYLASPARTYL (W) DIPEPTIDE (W) ESTER)

=&gt; s aspartyl dipeptide ester

4430 ASPARTYL

15764 DIPEPTIDE

466024 ESTER

L7 9 ASPARTYL DIPEPTIDE ESTER  
(ASPARTYL (W) DIPEPTIDE (W) ESTER)

=&gt; d 1-9 ibib abs hitstr

L7 ANSWER 1 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:842307 CAPLUS

DOCUMENT NUMBER: 135:370940

TITLE: N-Alkylaspartyl dipeptide esters and low-calorie  
sweeteners containing them

INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

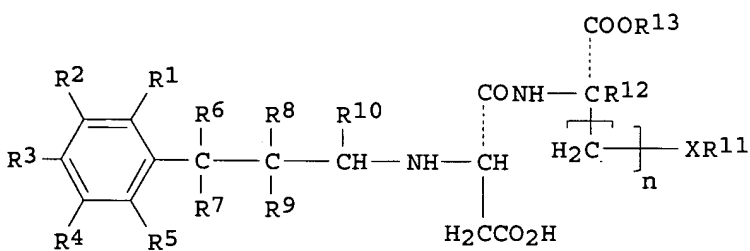
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001322996	A2	20011120	JP 2000-142808	20000516

OTHER SOURCE(S): MARPAT 135:370940

GI



AB Sweeteners contain title compds. I (R1-R5 = H, OH, C1-3 alkoxy, C1-3 alkyl, C2-3 hydroxyalkyloxy; R6-R10 = H, C1-3 alkyl; R11 = C1-5 alkyl; R12 = H, C1-3 alkyl; R13 = C1-4 alkyl; X = O, S; n = 1, 2) or their salts. A THF soln. of 967 mg .alpha.-L-aspartyl-(S-tert-butyl)-L-cysteine Me ester was condensed with 360 mg 3-(3-hydroxy-4-methoxyphenyl)propionaldehyde in the presence of AcOH and NaB(OAc)3H at room temp. overnight to give 596 mg I (R1 = R4-R10 = R12 = H, R2 = OH, R3 = OMe, R11 = CMe3, R13 = Me, X = S, n = 1), which was 40,000 times as sweet as sucrose.

L7 ANSWER 2 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:833348 CAPLUS

DOCUMENT NUMBER: 135:358168

TITLE: Process for producing aspartyl  
dipeptide ester derivativesINVENTOR(S): Kawahara, Shigeru; Nagashima, Kazutaka; Takemoto,  
Tadashi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 25 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001085761	A1	20011115	WO 2001-JP3479	20010423

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: JP 2000-137028 A 20000510

OTHER SOURCE(S): CASREACT 135:358168; MARPAT 135:358168

AB This document discloses a process for conveniently producing on an industrial scale in high yield N-[N-[3-(phenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester derivs., which are expected to be sweeteners, by reductively alkylating aspartame with 3-phenyl-2-propenyl aldehyde derivs. under hydrogen in the presence of a catalyst and a base.

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:265445 CAPLUS

DOCUMENT NUMBER: 134:265559

TITLE: Sweetener compositions with high degree of sweetness having improved sweetness, supplements and utilization thereof

INVENTOR(S): Ishii, Shoichi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 50 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025263	A1	20010412	WO 2000-JP6629	20000926

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM  
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

JP 2001103925 A2 20010417 JP 1999-284344 19991005

JP 2001103926 A2 20010417 JP 1999-284345 19991005

AU 2000073222 A5 20010510 AU 2000-73222 20000926

EP 1223175 A1 20020717 EP 2000-961240 20000926

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

BR 2000014492 A 20020820 BR 2000-14492 20000926

PRIORITY APPLN. INFO.: JP 1999-284344 A 19991005

JP 1999-284345 A 19991005

WO 2000-JP6629 W 20000926

OTHER SOURCE(S): MARPAT 134:265559

AB Sweetener compns. similar to sucrose are obtained by blending aspartyl dipeptide ester derivs. (I, Markush

structure claimed) such as [N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester with at least one compd. selected from the group comprising saccharides and sugar alcs., in the form of solns. These derivs. I are added to improve the taste of beverages.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2001:265444 CAPLUS

DOCUMENT NUMBER: 134:265558

TITLE: Sweetener compositions with high degree of sweetness having improved sweetness, supplements and utilization thereof

INVENTOR(S): Ishii, Shoichi

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025262	A1	20010412	WO 2000-JP6628	20000926
W:				
AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW:				
GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000073221	A5	20010510	AU 2000-73221	20000926
EP 1221448	A1	20020710	EP 2000-961239	20000926
R:				
AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
BR 2000014454	A	20020820	BR 2000-14454	20000926
PRIORITY APPLN. INFO.:				
			JP 1999-283505	A 19991004
			JP 1999-283506	A 19991004
			JP 1999-284346	A 19991005
			WO 2000-JP6628	W 20000926

OTHER SOURCE(S): MARPAT 134:265558

AB Sweetener compns. similar to sucrose are obtained by blending **aspartyl dipeptide ester** derivs. (I, Markush structure claimed) such as N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-<a-aspartyl]-L-phenylalanine 1-Me ester with at least one compd. selected from the group comprising aspartame, saccharides, sugar alcs. and oligosaccharides, so as to enhance the taste of I. These derivs. I are added to improve the taste of beverages and pharmaceuticals.

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 2000:15228 CAPLUS

DOCUMENT NUMBER: 132:63481

TITLE: Novel **aspartyl dipeptide ester** derivatives as sweeteners

INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko; Takemoto, Tadashi; Nakamura, Ryoichiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000000508	A1	20000106	WO 1999-JP3050	19990607
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2336133	AA	20000106	CA 1999-2336133	19990607
AU 9940602	A1	20000117	AU 1999-40602	19990607
AU 752473	B2	20020919		
EP 1088829	A1	20010404	EP 1999-923954	19990607
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
BR 9911551	A	20011009	BR 1999-11551	19990607
NO 2000006627	A	20010212	NO 2000-6627	20001222
PRIORITY APPLN. INFO.: JP 1998-180204 A 19980626				
WO 1999-JP3050 W 19990607				

OTHER SOURCE(S): MARPAT 132:63481

AB The Markush structure of the **aspartyl dipeptide ester** derivs. (including salts thereof) are given, and the example is N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-.alpha.-aspartyl]-L-(.alpha.-methyl)phenylalanine 1-Me ester. These compds. are low-calorie sweeteners and are sweeter than conventional ones.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:672857 CAPLUS

DOCUMENT NUMBER: 131:272186

TITLE: Preparation of **aspartyl dipeptide ester** derivatives as sweeteners

INVENTOR(S): Amino, Yusuke; Yuzawa, Kazuko; Takemoto, Tadashi; Nakamura, Ryoichiro

PATENT ASSIGNEE(S): Ajinomoto Co., Inc., Japan

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9952937	A1	19991021	WO 1999-JP1210	19990311
W: AU, BR, BY, CA, CN, CZ, HU, IL, IN, JP, KR, MX, NO, NZ, PL, RO, RU, SK, TR, UA, US, VN				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2327938	AA	19991021	CA 1999-2327938	19990311
AU 9941184	A1	19991101	AU 1999-41184	19990311
AU 753110	B2	20021010		
BR 9909542	A	20001226	BR 1999-9542	19990311
EP 1070726	A1	20010124	EP 1999-932431	19990311
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, RO				
RU 2179979	C1	20020227	RU 2000-2000128012	19990311
ZA 9902566	A	19991012	ZA 1999-2566	19990407
NO 2000004979	A	20001107	NO 2000-4979	20001003
PRIORITY APPLN. INFO.: JP 1998-97701 A 19980409				
JP 1999-38190 A 19990217				
WO 1999-JP1210 W 19990311				

OTHER SOURCE(S): MARPAT 131:272186

AB Novel **aspartyl dipeptide ester** derivs.

(including those in the form of a salt) having an excellent sweetening effect and usable as sweeteners such as N-[N-[3-(3-methyl-4-hydroxyphenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester and N-[N-[3-(3-hydroxy-4-methoxyphenyl)propyl]-L-.alpha.-aspartyl]-L-phenylalanine 1-Me ester (I) are prepd. Thus, I was prepd. from N-tert-butoxycarbonyl-.beta.-O-benzyl-.alpha.-L-aspartyl-L-phenylalanine Me ester and 3-benzoyloxy-4-methoxycinnamaldehyde. I was 20,000-times sweeter than sucrose.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1988:222092 CAPLUS

DOCUMENT NUMBER: 108:222092

TITLE: Enzyme-catalyzed selective ester hydrolysis of aspartyl and glutamyl dipeptide benzyl esters

AUTHOR(S): Chen, Shui Tein; Wang, Kung Tsung

CORPORATE SOURCE: Inst. Biochem. Sci., Natl. Taiwan Univ., Taipei, Taiwan

SOURCE: Journal of Chemical Research, Synopses (1987), (9), 308-9

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:222092

AB Treatment of dipeptide esters Boc-X(Bzl)-X1(Bzl)-OBzl (Boc = Me3CO2C, Bzl = PhCH2, X, X1 = Asp or Glu) with Alcalase in aq. acetone at 45.degree. and pH 7.5 gave Boc-X(Bzl)-X1(Bzl)-OH in 52-83% yield.

L7 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1977:536391 CAPLUS

DOCUMENT NUMBER: 87:136391

TITLE: Aspartyl dipeptide esters

INVENTOR(S): Fujino, Masahiko; Wakimasu, Mitsuhiro; Mano, Mitsuhiro; Nishimura, Osamu; Nakajima, Nobuo; Aoki, Hisashi

PATENT ASSIGNEE(S): Takeda Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 51095017	A2	19760820	JP 1976-5536	19760120
JP 59029069	B4	19840718		

AB Dipeptide esters HO2CCH2CH(NH2)CONHCH(CO2R)(CH2)nR1 (I, R = lower alkyl; n = 0, 1; R1 = acyclic or cyclic alkylcarbonyloxy or alkyloxycarbonyl) or their salts, useful as sweetening agents, were prepd. by deblocking at the carboxyl and optionally at the amino group or by acylating H2NCH(CO2R)(CH2)nR1 with 2,5-oxazolidinediole-4-acetic acid. Thus, Me carbobenzoxy-.beta.-benzyl-L-aspartyl-L-serinate was acylated with pivaloyl chloride in C5H5N and the product hydrogenated over Pd black in MeOH to give 84% I (R = Me, n = 1, R1 = O2CCMe3), which was .apprx.50 times as sweet as sucrose. Among 14 more I prepd. were (R, n, and R1 given) (L-L-dipeptides when n = 1): Me, 1, CO2CMe3; Et, 0, cyclohexyloxycarbonyl; Et, 0, cyclopentyloxycarbonyl; Et, 0, CO2CH2t.

L7 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1972:502214 CAPLUS

DOCUMENT NUMBER: 77:102214

TITLE: Reaction of aspartyl dipeptide esters with ketones

AUTHOR(S): Ariyoshi, Yasuo; Sato, Naotake

CORPORATE SOURCE: Cent. Res. Lab., Ajinomoto Co., Inc., Kawasaki, Japan

SOURCE: Bull. Chem. Soc. Jap. (1972), 45(7), 2015-18

CODEN: BCSJA8

DOCUMENT TYPE: Journal

LANGUAGE:

Englis

GI For diagram(s), see printed CA Issue.

AB H-L-.alpha.-Asp-L-Q-OR [I; Q = Phe, Tyr, .beta.-cyclohexyl-Ala, .beta.-(4-hydroxycyclohexyl)-Ala; R = Me, Et] reacted with Me<sub>2</sub>CO, MeCOEt, and cyclohexanone in the absence of catalyst to give the 4-imidazolidinone derivs. (II; R, R<sub>1</sub> = Me, Et; R<sub>2</sub> = Ph, p-HOC<sub>6</sub>H<sub>4</sub>, cyclohexyl, 4-hydroxycyclohexyl) and the spiro compd. (III). In soln., II (R = R<sub>1</sub> = Me, R<sub>2</sub> = Ph) assumes a folded conformation in which the aromatic ring faces the imidazolidine ring. In boiling H<sub>2</sub>O, II and III were hydrolyzed to the corresponding I. The .beta.-isomers of I did not react with ketones under the same conditions; this difference in reactivity was used to sep. mixts. of .alpha.-and .beta.-aspartyl peptides.